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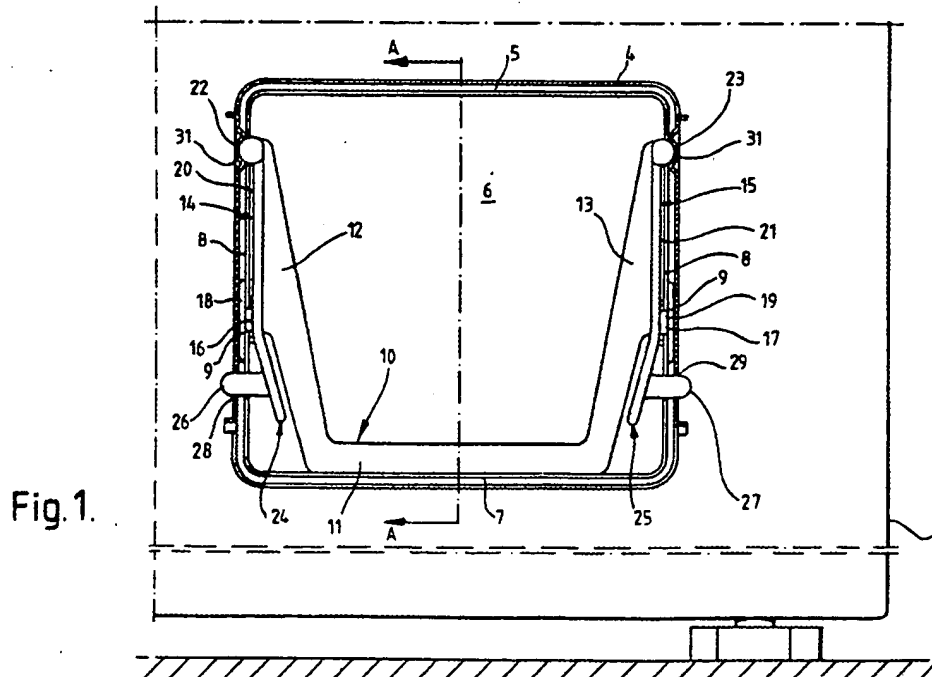
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(54) Flap for washing machine filter

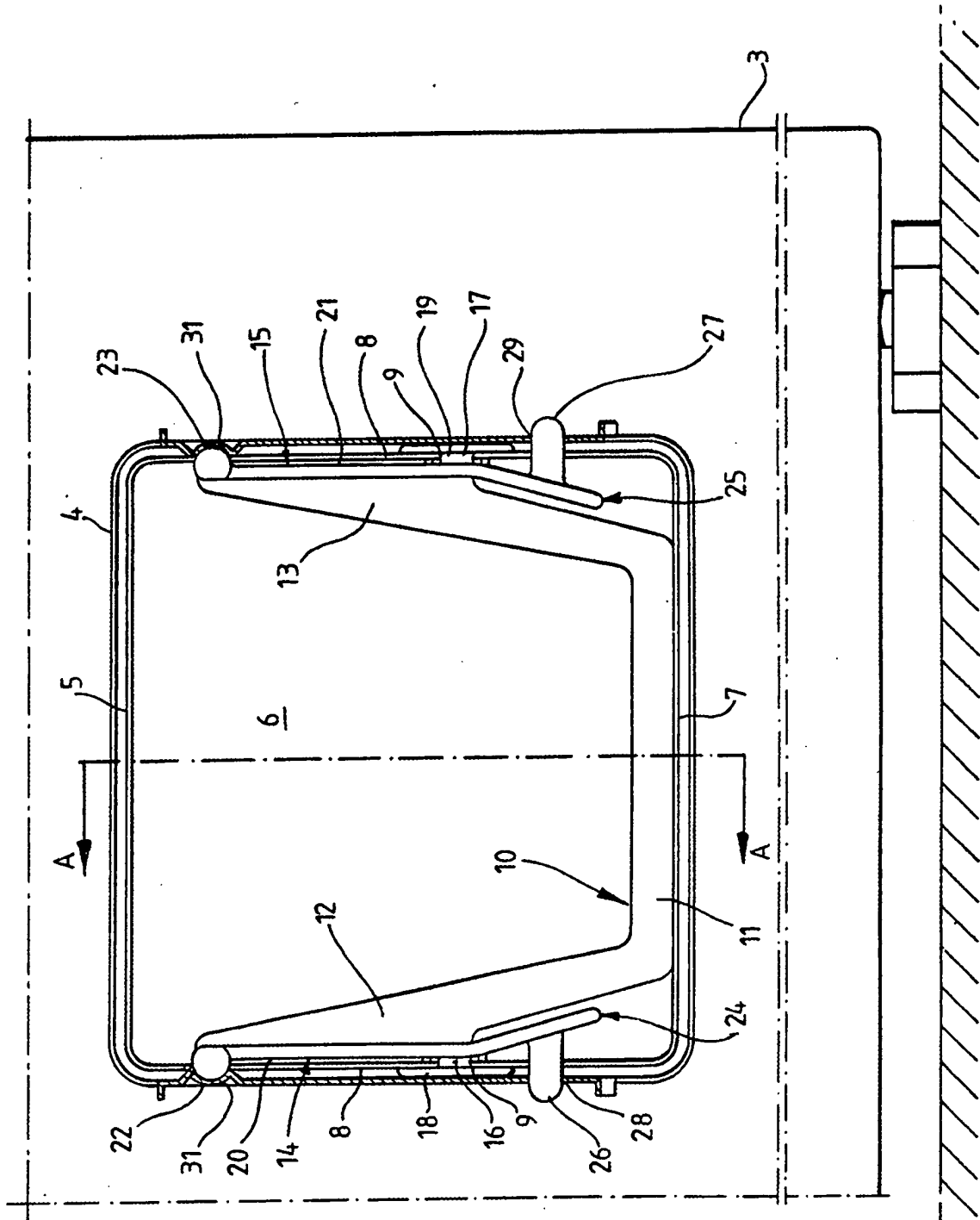
(57) A flap for covering the filter-accessing aperture of a clothes washing machine, comprises a flat plate (6) whose rear surface is dished, and a resilient u-shaped element (10) which can be coupled removably to the flat plate (6), the u-shaped element (10) having first and second pairs of pins (16, 17; 26, 27) adapted for engagement in corresponding slots (9) formed in projecting side portions (8) of the flat plate (6) and in corresponding cavities (28, 29) formed in the sides of the aperture (4) in the casing (3), respectively. Pins 26, 27 act as pivots.

Releasable fastening. Hemispherical projections 22, 23 engage in cavities 31 in the aperture sides to secure the flap flush with the casing, or in cavities (32, fig. 2) to secure the flap slightly proud of the casing.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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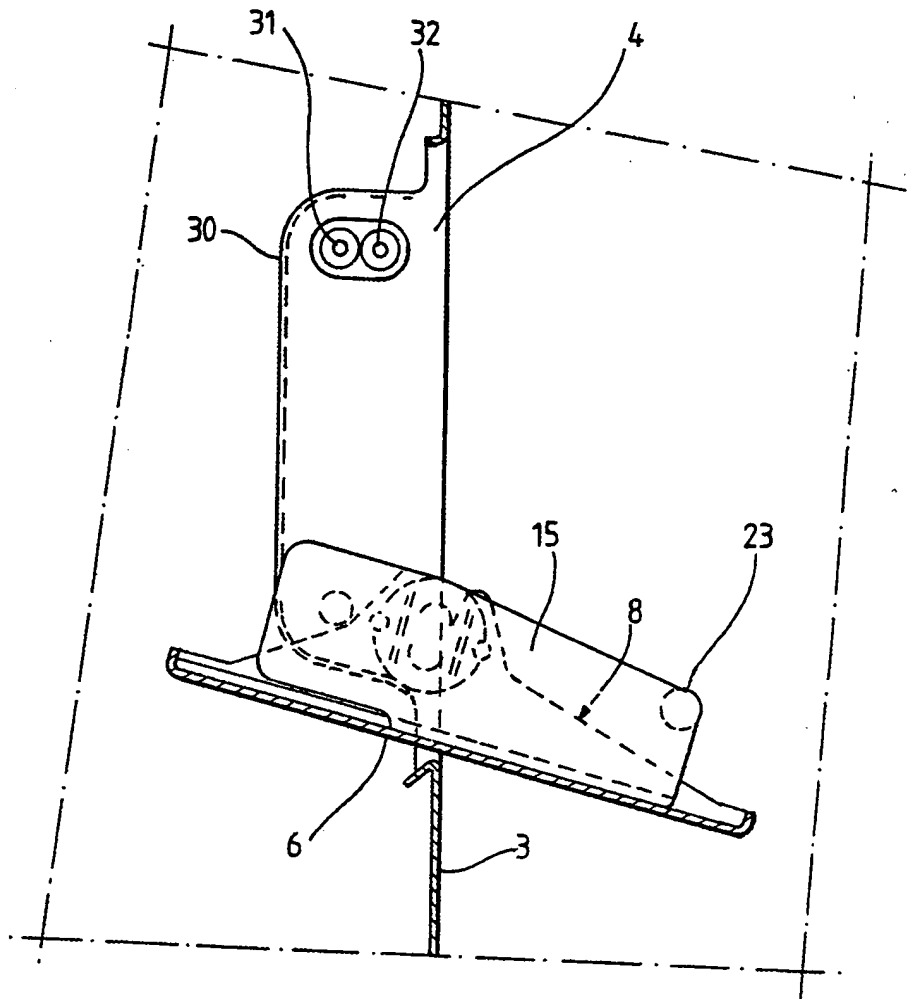


Fig.1.

A FLAP FOR COVERING THE FILTER OF A WASHING MACHINE

The invention relates to a flap for covering the filter of a washing machine, particularly a laundry washing machine, the flap being adapted to be fitted removably in the lower front part of the casing of the washing machine concerned.

As is known, current washing machines, and particularly laundry washing machines, are provided essentially with a filter for retaining the lint and any foreign bodies (buttons, etc.) contained in the laundry, the filter being inserted in the outlet pipe of each machine and usually being situated in the lower front part of the casing of the machine, the filter being accessible through a corresponding covering flap hinged to the machine.

More particularly, the flap has two vertical sprung pins for insertion in corresponding seats formed in the casing of the machine so that the flap can be pivoted about a vertical hinge axis.

However, with such a covering flap, a multi-stage operation is required to fix the pins in position and, moreover, the flap is inconvenient and awkward to fit to and remove from the casing of the machine in use. The present invention therefore aims to eliminate the problems mentioned by means of a covering flap which is structurally simple and can be fitted to and removed from any washing machine quickly and easily.

The covering flap is made with the innovative characteristics substantially as defined in the claims appended to the present specification.

The invention will be understood better from the

following description, given purely by way of non-limiting example with reference to the appended drawings, in which:

- Fig. 1 is a rear view of the closure flap according to the invention, fitted to a washing machine;

- Fig. 2 is a side view of the machine of Fig. 1, sectioned on the line A-A, with the flap moved to the open position.

Fig. 1 shows the lower front part of the casing 3 of a washing machine, particularly a domestic washing machine, in which an aperture 4 is formed for access to a conventional lint filter (not shown) of the machine, the aperture being accessible through the present covering flap 5.

The flap is constituted essentially by a flat metal plate 6 whose rear surface is dished so as to form a peripheral edge 7 and two projecting side portions 8 with respective central slots 9, as well as by a separate element 10 formed by a piece of plastics material shaped in the manner described below, so that it can be coupled removably to the flat plate 6.

In particular, the separate element 10 has a flat portion formed by a straight part 11 connected to two inclined parts 12 and 13, each of which is connected at right angles to a corresponding resilient tongue 14, 15 with a respective pin 16, 17 that projects outwardly and is delimited by a respective flat, circular head 18, 19, the resilient tongues having respective straight portions 20 and 21 with corresponding

hemispherical projections 22, 23 at their free ends and respective inclined portions 24, 25 with corresponding short, outwardly-projecting pins.

The separate element 10 is coupled to the flat plate 6 by the full insertion of the pins 16 and 17 of the respective resilient tongues 14 and 15 in the corresponding slots 9 in the side portions 8, so that the straight part 11 and the inclined parts 12 and 13 all bear against the flat rear surface of the plate 6 and are arranged against the lower peripheral edge 7 and against the corresponding side portions 8 of the plate, respectively.

Now, with a look at Figure 2, this shows the mounting of the assembled covering flap in the corresponding aperture 4 in the casing 3 of the machine. For this purpose, by suitable bending of the inclined portions 24 and 25 of the respective resilient tongues 14 and 15, it is first of all possible to fit the pins 26 and 27 of the respective inclined portions in the corresponding cavities 28 and 29 formed each in a respective re-entrant edge 30 (the other edge is not shown in the drawing) defining the side of the aperture 4 and, in this condition, the present covering flap is articulated about a horizontal axis and can be tilted forwardly of the casing 3 of the machine until it assumes the position shown in Fig. 2.

Moreover, the door can be pivoted about its horizontal articulation axis into two further positions, that is, a position in which it is arranged flush with the front surface of the casing 3, against the underlying filter and completely closing the aperture 4, in which position the hemispherical projections 22 and 23 of the

door engage in corresponding hemispherical cavities 31 formed in the re-entrant edges 30 of the aperture 4, and a further position in which the door is moved slightly forwards from the casing 3 to provide the user with a better grip, in which position the hemispherical projections 22 and 23 engage in corresponding hemispherical cavities 31 also formed in the re-entrant edges 30 (Figure 2 shows only one of each of the cavities 31 and 32).

Thus, the covering flap in question has a simple structure and can be fitted to and removed from the washing machine quickly and easily, making the flap convenient and extremely easy to handle in use. Finally, the flap has the further advantage that it prevents any water remaining in the outlet pipe of the machine from escaping during the removal of lint from the filter by virtue of the fact that the flap is moved to the tilted position of Fig. 2, in which the water collects on the rear surface of the plate 6 delimited by the peripheral edge 7.

CLAIMS

1. A flap for covering the filter of a washing machine, particularly a laundry washing machine, the filter being accessible through an aperture coincident therewith and formed in the lower front part of the casing of the machine, characterised in that it comprises a flat plate (6) whose rear surface is dished, and a shaped element (10) which can be coupled removably to the flat plate (6), the shaped element (10) having first and second pairs of pins (16, 17; 26, 27) adapted for engagement in corresponding slots (9) formed in projecting side portions (8) of the flat plate (6) and in corresponding cavities (28, 29) formed in the sides of the aperture (4) in the casing (3), respectively.

2. A covering flap according to Claim 1, characterised in that the first and second pairs of pins (16, 17; 26, 27) are formed on corresponding resilient tongues (14, 15) of the shaped element (10) which have respective hemispherical projections (22, 23) for engagement in corresponding hemispherical cavities (31, 32) formed in the sides of the aperture (4).